

LETTERS AND  
CORRESPONDENCE

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## AIDS-Related Pure Red Cell Aplasia

To the Editor: Pure red cell aplasia (PRCA) is associated with several diseases [1] but less frequently with AIDS. We communicate two AIDS-associated PRCA patients with a successful response to prednisone (PDN).

The first patient, a 48-year-old female diagnosed with AIDS after generalized cryptococcoses, was treated prophylactically with trimethoprim-sulfamethoxazole, zidovudine, isoniazid and fluconazole. She required hospitalization for bronchial complaints. A bacterial pneumonia was documented and prophylactical medication was discontinued. Hematological values on admission and during hospitalization are shown in Table I. Still with the infection, the bone marrow examination (BME) showed erythroid hypoplasia (<1%) with normal cellularity, megakaryocyte and granulocyte counts and the direct Coomb's test (DCT) was negative. Oral PDN (1 mg/kg/day) treatment was initiated. Five months after entry and with the patient still

receiving PDN, the BME showed 17% of erythroid progenitors. The patient was alive 12 months after PRCA diagnosis.

The second case, a 36-year-old man, diagnosed with AIDS after cerebral toxoplasmosis, had a history of unresponsive moderate anemia. He was admitted due to headache, photophobia, blurred vision and a distal neuropathy. An empirical treatment against toxoplasmosis (later serologically confirmed) was started. Hematological values at entry and during hospitalization are shown in Table I. At entry, the urinalysis showed Hb + + +; indirect bilirubin was 2.3 mg/dl; the lactate dehydrogenase level was 1,680 IU; and the DCT was positive at 1:128. Despite some clinical improvement, anemia persisted still with intravascular hemolysis. The BME revealed an erythroid hypoplasia (1%) with normal megakaryocyte and leukocyte counts. A PRCA associated with a Coomb's positive hemolytic anemia was diagnosed and PDN 1 mg/kg/day was started. Two months after discharge, he had no evidence of hemolysis. Four months after entry, while taking PDN 5 mg/day, the BME showed an increase in erythroid progenitors (26%). The patient was alive 13 months after PRCA diagnosis.

PRCA is an uncommon disease that has been associated with an acquired inhibitor of erythroid precursors [2,3]. The suggested mechanisms for AIDS-related PRCA include an autoimmune response associated with infectious agents or the myelosuppressive effect of the antiretroviral therapy.

In the case of the first patient, the fast response to PDN substantiates an autoimmune etiology. At the time of diagnosis she was not receiving the prophylactic regimen and the pulmonary infection was active. The latter was not felt to be contributory based on her rapid response to PDN prior to resolution of the infection. Moreover, although zidovudine was stopped 3 weeks before the PRCA diagnosis, the red cell values did not improve.

Although the second patient was not receiving antiretroviral therapy, he simultaneously developed a PRCA and a Coomb's positive anemia. To our knowledge, this is the first report of an AIDS patient with both entities appearing simultaneously. Response to PDN was fast before the remission of the toxoplasmosis. Probably, he produced two antibodies against both erythroid precursors and erythrocytes.

Parvovirus-associated PRCA has been reported in AIDS with pathognomonic giant BM normoblasts [4]. Our patients did not have these cells.

PRCA may be a frequent cause of unresponsive AIDS-related anemia. In these cases PDN can be effective.

TABLE I. Hematological Follow-Up and Transfusion Requirements\*

	Hb g/dl	TLC/TNC × 10 <sup>9</sup> /l	PC × 10 <sup>9</sup> /l	CRC %	Transfusion Requirement U
Patient 1					2
At entry	10.9	3.9/0.1	160	—	
At hospital	8.0	5.3/0.1	150	0.2	0
	6.1	—/—	178	0.2	3
Bone marrow aspiration. Start of prednisone therapy.					
After discharge					
5th month	8.4	2.5/1.9	176	2.4	0
7th month	9.4	22.0/2.9	81	1.2	0
Patient 2					
At entry	6.3	5.1/2.2	150	<0.2	2
At hospital	9.0	5.8/0.1	164	<0.2	0
	7.4	5.0/1.1	144	0.4	0
Bone marrow aspiration. Start of prednisone therapy.					
After discharge					
5th month	10.4	6.0/2.4	178	3	0
7th month	9.2	3.9/0.57	128	1	0

\*Hb: hemoglobin level; TLC/TNC: total leukocyte and neutrophil counts; PC: platelet count; CRC: corrected reticulocyte count; U: red blood cells units.

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